

**BY ORDER OF THE COMMANDER
AIR COMBAT COMMAND**



AIR FORCE INSTRUCTION 21-103

**AIR COMBAT COMMAND
Supplement**

ADDENDUM_JJ

17 MAY 2012

Maintenance

**EQUIPMENT INVENTORY, STATUS, AND
UTILIZATION REPORTING SYSTEM/A-10C
MINIMUM ESSENTIAL SUBSYSTEM LIST
(MESL)**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This MESL compliments AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*. It applies to all A-10C ACC units. This Addendum does apply to Air National Guard (ANG) Air Force Reserve Command (AFRC) units and members. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.myaf.mil/afrims/afrims/afrims/rims.cfm>. Contact supporting records managers as required. Send recommended changes or comments on AF Form 847, *Recommendation for Change of Publication*, to HQ ACC/A4V10-A10, 130 Douglas St., Suite 210, Langley AFB VA 23665- 2791, and send information copies to the applicable Office of Collateral Responsibility (OCR). OCR: HQ ACC/A4Q.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include: An additional note under line number 13 for aircraft external tanks. Additionally, LARS, SADL, upfront controller, MFCD, targeting pods, countermeasures set and AAR-47 systems were added as new subsystems for consideration with respect to equipment inventory, status, and utilization reporting. Finally the ECM pod assembly was added as a separate subsystem for consideration during aircraft status determination as well.

1. General. The MESL is the basis of status reporting IAW AFI 21-103. MESLs lay the ground work for reporting the status of aircraft availability. They list the minimum essential systems and subsystems that must work on an aircraft for it to perform specifically assigned unit wartime, training, test or other missions. Mission Ready Available (MRA) is used in readiness Status of Resources and Training System reporting only and denotes Mission Capable (MC) aircraft capable of being configured for a contingency mission IAW COMACC OMNIBUS Plan.

1.1. Qualifying notes are used to define aircraft exceptions and help explain complex degraded mission systems such as suspension equipment.

1.2. Aircraft status for generation and deployment: The goal is to generate or deploy Fully Mission Capable (FMC) aircraft, recognizing status actually achieved may be less than FMC. A Not Mission Capable (NMC) aircraft may be deployed provided it is safe for flight and can be configured and generated to MRA status at an employment site.

1.3. All ACC units will generate, or deploy and regenerate, using ACC MESLs. Major Command (MAJCOM) differences in MESLs are acknowledged. Upon actual deployment to another MAJCOM theater, the gaining MAJCOM has the responsibility to resource and specify the unit's requirements and resource the differences in support/mission equipment.

1.4. **Reading the MESL.** A MESL is read by comparing the systems stated by work unit code (WUC) against the Full Systems List (FSL) and all applicable Basic Systems List (BSL) across the page. Each unit's Design Operational Capability (DOC) statement determines applicability of BSL columns. The aircraft MESLs incorporate all ACC assigned aircraft; therefore, it is important to compare only those columns listed in the MESL that are applicable to the unit's assigned aircraft. For example, units with CC (wartime) coded aircraft would determine and report status using only the FSL and BSL columns related to their DOC statement. Units with TF (training) coded aircraft would determine and report status using only the FSL and TNG columns, and units with CB (test) coded aircraft would determine and report status using only the FSL and TST columns. Units with multiple coded aircraft will ensure status is reported using the MESL columns appropriate to the individual aircraft assignment code.

1.4.1. A-10C unique mission codes are:

CAS—Close Air Support

FAC—Forward Air Control

***TNG**—Tactical Training (ONLY for TF-coded aircraft)

***TST**—Developmental Test and Evaluation (ONLY for CB-coded aircraft)

Table 1. A-10C AIRCRAFT SYSTEMS MESL.

NO.	WUC	SYSTEM/SUBSYSTEM	FSL	BSL			
				CAS	FAC	*TNG	*TST
1.	11	Airframe	X	X	X	X	X
2.	12	Cockpit	X	X	X	X	X
3.	13	Landing Gear	X	X	X	X	X
4.	14	Flight Controls	X	X	X	X	X
5.	23	Power Plant	X	X	X	X	X
6.	24	Auxiliary Power Plant	X	X	X	X	X
7.	41	Air Conditioning/ Press/Anti-Ice	X	X1	X1	X1	X1
8.	41D/G	Rain Removal/ Windshield Wash	X				
9.	42	Electrical System	X	X	X	X	X
10.	44B	Exterior Lighting	X2	X2	X2	X2	X2
11.	44C	Interior Lighting	X	X	X	X	X
12.	45	Hydraulic and Pneumatic System	X	X	X	X	X
13.	46	Fuel System	X3	X3	X3	X3	X3
14.	47	Oxygen System	X	X	X	X	X
15.	49	Miscellaneous Utilities	X	X	X	X	X
16.	51	Instruments	X	X	X	X	X
17.	52	Autopilot	X				
18.	55D/E	Turbine Engine Monitoring System and Air Data Recorder TEMS/ADR	X	X	X	X	X
19.	62	VHF AM or FM Comm or ARC-210	X	X	X	X	X
20.	63	UHF Communications	X	X4	X4	X	X
21.	63AD	Direction Finder ADF/ARD	X	X5	X5		
22.	64	Intercom	X	X	X	X	X
23.	65	IFF/SIF	X	X	X	X6	X6
24.	69	Miscellaneous Comm	X	X7	X7		
25.	69C	LARS	X8	X8	X8		
26.	69D	SADL	X	X	X	X	X
27.	71	Radio Navigation	X	X	X	X	X
28.	72	Radar Navigation- Altimeter System	X	X9	X9	X9	X9
29.	74B	HUD	X	X	X	X	X
30.	74C	Target Ident – Pave Penny	X	X8	X8		
31.	74K	LASTE System	X	X	X	X	X

32.	74L	Cockpit TV Sensor/Video System (DVADR)	X	X	X	X	X
33.	74N	Upfront Controller	X10	X10	X10	X10	X10
34.	74P	MFCD	X	X	X	X	X
35.	74 5/X	Targeting Pod	X11	X11	X11		
36.	75	Weapons Delivery	X	X12	X12	X12	X12
37.	75A	Gun System	X	X	X	X	
38.	76A	Countermeasures Set	X	X	X		
38.	76B	AAR-47 System	X13	X13	X13		
39.	76D	ALE 40 System	X	X	X		
40.	76E	ALR 69 System	X	X	X		
41.	76 G/X	ECM pod Assembly	X	X	X		
42.	91	Emergency Equipment	X	X	X	X	X
43.	97	Explosive Devices	X	X	X	X	X
*TNG: ONLY APPLIES TO AIRCRAFT IN ASSIGNMENT CODE TF							
*TST: ONLY APPLIES TO AIRCRAFT IN ASSIGNMENT CODE CB							
QUALIFYING NOTES:							
1. Manual Mode Only Required							
2. As Required By AFI 11-218, <i>Aircraft Operations and Movement on the Ground</i> . Landing Lights and Strip Lights or Formation Light Required as a Minimum for PMC							
3. External Tanks Not Required for Stations 4 and 8							
4. UHF Have Quick Must Be Capable							
5. Required for all missions since any mission can be re-tasked for Combat Search and Rescue							
6. Only Mode 3 and C must be operational							
7. KY-58 Secure Voice Must Be Capable							
8. If Installed							
9. Required for Low Level Operations							
10. Master Caution Circuit and "ENTER" Button Must be Operational							
11. Station 2 or 10 Must Be Targeting Pod Capable							
12. Stations 1 or 11 must be ECM pod capable and AIM-9 capable if equipped. Stations 3 and 9 must be Maverick capable. Stations 3, 4, 5, 7, 8, and 9 must meet mission requirements							
13. Required for Combat Operations Only as Determined by Theater Commander							

GILMARY M. HOSTAGE III, General, USAF
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 11-218, *Aircraft Operations and Movement on the Ground*, 28 October 2011

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, 26 January 2012

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ACC—Air Combat Command

AFRC—Air Force Reserve Command

ANG—Air National Guard

BSL—Basic System Lists

CAS—Close Air Support

DOC—Design Operational Capability

FAC—Forward Air Control

FMC—Fully Mission Capable

FSL—Full System List

HQ—Headquarters

IAW—In Accordance With

MAJCOM—Major Command

MESLs—Minimum Essential Systems Lists

MC—Mission Capable

MRA—Mission Ready Available

NMC—Not Mission Capable

TNG—Tactical Training

TST—Developmental Test and Evaluation

WUC—Work Unit Code